

### AMENDMENTS TO THE CLAIMS

1. **(Currently amended)** Apparatus for modifying a power flow in a segment of an electric power line, each segment including phase lines each having  $n$  conductors, where  $n$  is equal to or greater than 2, electrically insulated from one another and short-circuited at ends of the segment, the apparatus comprising a power exchange unit including:

a power converter for converting power between first and second pairs of terminals, the first pair of terminals being connected in series with at least one ~~conductor~~ of the  $n$  conductors of the segment; and

an electric component connected to the second pair of terminals and capable of circulating power through the power converter for modifying said power flow.

2. **(Currently amended)** Apparatus according to claim 1, wherein the power exchange unit further comprises a switch for selectively connecting and disconnecting the first pair of terminals in series with said at least one conductor of the segment, in response to a control signal ~~signals~~ signal.

3. **(Currently amended)** Apparatus according to claim 2, comprising  $n-1$  power exchange units connectable by means of their switch respectively to  $n-1$  of the  $n$  conductors of a phase line belonging to the segment.

4. **(Currently amended)** Apparatus according to claim 2, comprising at least one additional power exchange unit for forming a set of  $n$  power exchange units, the  $n$  power exchange units being connectable by means of their switch respectively to  $n$  conductors of a phase line belonging to the segment.

5. **(Currently amended)** Apparatus according to claim 2, comprising an additional power exchange unit for forming a set of two power exchange units, the

two power exchange units being connectable by means of their switch respectively to conductors of two phase lines belonging respectively to said segment and to another segment, the two power exchange units sharing a common electric component for allowing a power flow between the two segments.

6. **(Currently amended)** Apparatus according to claim 5, wherein the switch of each power exchange unit is able to connect and disconnect, for the corresponding phase line, n-1 conductors that are short-circuited among each other on each side of the switch.

7. **(Currently amended)** Apparatus according to claim 5, wherein the switch of each power exchange unit is able to connect and disconnect, for the corresponding phase line, more than one and at most n-1 conductors that are short-circuited among each other on each side of the switch.

8. **(Original)** Apparatus according to claim 2, wherein the switch is able to connect and disconnect more than one and at most n-1 conductors of a phase line belonging to the segment, said more than one and at most n-1 conductors being short-circuited among each other on each side of the switch.

9. **(Currently amended)** Apparatus according to claim 2, comprising at least one additional power exchange unit for forming a first set of n-1 power exchange units, the switches of the n-1 power exchange units being able to connect and disconnect respectively n-1 conductors of a phase line belonging to the segment, said n-1 conductors being short-circuited among each other on a side of the switches.

10. **(Currently amended)** Apparatus according to claim 9, comprising at least one additional power exchange unit for forming a second set of n-1 power exchange units, the switches of the n-1 power exchange units of the second set being able to connect and disconnect respectively n-1 conductors of a second phase line belonging to another segment, said n-1 conductors of the second phase line being short-circuited among each other on a side of the corresponding switches, the first and second sets of power exchange units sharing common electric components for allowing a power flow between the two segments.

11. **(Original)** Apparatus according to claim 1, wherein the electric component is selected among the following components: a capacitor, a battery, an inductance, a resistance, and a resistance connected in parallel to a capacitor.

12. **(Currently amended)** Method for modifying a power flow in a segment of an electric power line, ~~each~~ the segment having phase lines each having n conductors, where n is equal to or greater than 2, insulated from one another and short-circuited at ends of the segment, the method comprising the following steps:

a) providing a power unit having a power converter for converting power between first and second pairs of terminals, and an electric component connected to the second pair of terminals and capable of circulating power through the power converter, the first pair of terminals being connected in series with at least one conductor of the n conductors of the segment ~~one of the phase lines~~; and

b) ~~converting power between the first and second pairs of terminals by~~  
~~means of~~ controlling the power converter for modifying said power flow.

13. **(Original)** Method according to claim 12, further comprising step c) of selectively connecting and disconnecting the first pair of terminals in series with

said at least one conductor of the segment, by means of ~~the~~ a switch in response to control signals, said switch being part of the power exchange unit.

14. **(Currently amended)** Method according to claim 13, wherein:
  - in step a), n-1 power exchange units are provided;
  - in step b), the power is converted by at least one of the n-1 power converters; and
  - in step c), the n-1 power exchange units are connected and disconnected by means of their switch respectively to n-1 conductors of a phase line belonging to the segment.
15. **(Currently amended)** Method according to claim 13, wherein:
  - in step a), at least one additional power exchange unit is provided for forming a set of n power exchange units;
  - in step b), the power is converted by at least one of the n power converters; and
  - in step c), the n power exchange units are connected and disconnected by means of their switch respectively to n conductors of a phase line belonging to the segment.
16. **(Currently amended)** Method according to claim 13, wherein:
  - in step a), an additional power exchange unit is provided for forming a set of two power exchange units;
  - in step b), the power is converted by means of two power converters; and
  - in step c), the two power exchange units are connected and disconnected by means of their switch respectively to conductors of two phase lines belonging respectively to said segment and to another segment, the two power exchange units

sharing a common electric component for allowing a power flow between the two segments.

17. **(Currently amended)** Method according to claim 16, wherein in step c), the switch of each power exchange unit connects and disconnects, for the corresponding phase line, n-1 conductors that are short-circuited among each other on each side of the switch.

18. **(Currently amended)** Method according to claim 16, wherein in step c), the switch of each power exchange unit connects and disconnects, for the corresponding phase line, more than one and at most n-1 conductors that are short-circuited among each other on each side of the switch.

19. **(Original)** Method according to claim 13, wherein in step c), the switch connects and disconnects more than one and at most n-1 conductors of a phase line belonging to the segment, said more than one and at most-1 conductors being short-circuited among each other on each side of the switch.

20. **(Currently amended)** Method according to claim 13, wherein:  
in step a), at least one additional power exchange unit is provided for forming a first set of n-1 power exchange units;  
in step b), the power is converted by at least one of the n-1 power converters; and  
in step c), the n-1 power exchange units are connected and disconnected by means of their switch respectively to n-1 conductors of a phase line belonging to the segment, said n-1 conductors being short-circuited among each other on a side of the switches.

21. **(Currently amended)** Method according to claim 20, wherein:

in step a), at least one additional power exchange unit is provided for forming a second set of n-1 power exchange units;

in step b), the power is converted by at least two of the power converters that belong respectively to the first and second sets and that are linked by a common electric component; and

in step c), the n-1 power exchange units of the second set are connected and disconnected by means of their switch respectively to n-1 conductors of a phase line belonging to a second segment, said n-1 conductors of the phase line belonging to the second segment being short-circuited among each other on a side of the corresponding switches, said at least two power converters allowing a power flow between the two segments.